UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

12-14-2022

REPLY TO THE ATTENTION OF:
WW-16J

[seidelt@michigan.gov]

Ms. Theresa Seidel
Director, Water Resources Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30473
Lansing, Michigan 48909

Subject: September 8, 2022, Public Notice No. HNV-A018-7X9N3, City of Grand Rapids

Dear Ms. Seidel:

The United States Environmental Protection Agency (EPA) appreciates the opportunity to provide comments on the above-referenced Michigan Department of Environment, Great Lakes, and Energy's (EGLE) September 8, 2022, Public Notice, in which the City of Grand Rapids (applicant) proposes impacts to the Grand River under Section 404 of the Clean Water Act (CWA). The proposed project is to remove four existing concrete low-head dams and install four rock grade control structures with wave and riffle features within the Grand River. The project spans from 130 feet upstream of Bridge Street, downstream to the upstream edge of the Fulton Street bridge in T07N, R12W, Section 25, City of Grand Rapids, Kent County, Michigan

The following comments constitute EPA's objection to the project, as proposed, pursuant to CWA section 404(j)[1] and as further prescribed in the *Memorandum of Agreement between the State of Michigan and EPA for Implementation of the 404 Permit Program* (MOA). Our comments reflect EPA review of the proposed project's compliance with the CWA section 404(b)(1) Guidelines (Guidelines).[2]

NEPA Review

In a November 1, 2022, letter in response to the U.S. Department of Agriculture's (USDA) Draft Environmental Assessment (EA) dated September 2022, EPA provided comments to the USDA that highlight our concerns with the Lower Grand River Habitat Restoration and Farmland Conservation Partnership Project (attached). While EPA's comments on the Draft EA include discussion and recommendations related to environmental topics other than those included in the subject Public Notice, many overlap with this project's conformity with EGLE's assumed CWA Section 404 program. For example, the project purpose is a component of both the Draft EA and the Section 404 application. Similarly, EPA's EA response letter includes recommendations

[1] 33 U.S.C. § 1344 (j)
[2] 40 CFR § 230

regarding wetland impacts, restoration of aquatic resource functions for fish and mussels, and potential water quality impacts, all of which are considered in EGLE's Section 404 permit decision and EPA's review of the project's consistency with the Guidelines.

EPA recommends that EGLE address our NEPA recommendations and questions regarding the Draft EA, which overlap with EGLE's CWA permit requirements, prior to making its permit decision.

EGLE Letter: November 4, 2022

In its letter dated November 4, 2022, EGLE notified the applicant of multiple outstanding issues regarding the proposed project and deficiencies in the application materials. Many of the issues overlap with EPA's review of the project's compliance with the Guidelines. EGLE's letter refers to future meetings and discussions of paths forward for the project, and EPA is interested in joining these discussions where they fit within EPA's oversight of the Michigan assumed CWA Section 404 Program.

Impacts Assessment

Pursuant to the Guidelines, an aquatic resource impacts assessment shall include analyses of all direct, secondary, and cumulative impacts of a proposed project. The impacts assessment also includes both permanent and temporary impacts. Secondary impacts on an aquatic ecosystem are associated with the discharge of dredged or fill material, but do not result from the actual placement of the dredged or fill material. Cumulative impacts are defined as the changes in an aquatic ecosystem that are attributable to the aggregate effect of a number of individual discharges of dredged or fill material. The Guidelines require that direct, secondary, and cumulative effects be considered when determining the significance of aquatic resource impacts as well as whether the proposed alternative is the least environmentally damaging practicable alternative.

The project impacts assessment included in the application is divided into many technical documents, but it falls short of what is needed for the agencies to evaluate the adverse effects of the proposed project, because it does not include an analysis of secondary or temporary impacts, nor does it give a cohesive picture of adverse effects on the Grand River. EPA recommends the applicant provide a single document that summarizes both permanent and temporary impacts of the proposed project and includes direct, secondary, and cumulative effects. Without this information and analysis, the application is incomplete, making it difficult to determine the extent of environmental impacts of the project as proposed.

The proposed project (*i.e.*, lower reach) is part of a larger restoration project, which includes a project directly upstream (*i.e.*, upper reach/6th Street Dam). Because the proposed lower reach project is the first phase of the overall Grand River restoration project, the cumulative impacts assessment report lists multiple river-reach scale projects with estimated permanent impacts. However, the applicant's evaluation is missing information on how the lower reach project design would impact the design of upper reach projects within the Grand River restoration. Specifically, by setting the design water-level high enough to facilitate white water recreation, the applicant has limited alternatives for the 6th Street Dam project because the options for

completing the 6th Street Dam project are constrained by the water levels required to maintain flow over the grade-control and whitewater features proposed in the lower reach. Similarly, the base-water level for the proposed project influences flood management options for the rest of the larger project and adding flood storage to this part of the project may allow for additional alternatives for other components of the larger project while benefitting the overall functions of the Grand River. We recommend the applicant augment the impacts assessment to include consideration of implications of the whitewater recreation component of the Subject project purpose on the other projects that are part of the overall Grand River restoration.

EPA is aware that EGLE requested specific information related to the impacts assessment, including an analysis of temporary and permanent water quality effects of the construction (e.g. potential for the dewatering/storm water discharges to concentrate PFAS at a single discharge point, potentially increasing ecological and human exposure and risk); however, the water quality effects information provided by the applicant in response to that request is still inadequate. EGLE also noted that there has not been detailed exploration of bedrock elevations and substrate analysis, similar to what was completed by the U.S. Army Corps of Engineers for the reach of river upstream of the 6th Street Dam. EPA agrees that this information is necessary to evaluate both the design and the impacts of the proposed project. Without this information and analysis, the application is incomplete, making it difficult to determine the extent of environmental impacts of the project as proposed.

The Guidelines prohibit discharges that will cause or contribute to significant degradation of the waters of the United States. Significant degradation may include individual or cumulative impacts to human health and welfare; fish and wildlife; ecosystem diversity, productivity and stability; and recreational, aesthetic or economic values.[3] While EPA does not have enough information to make this determination, we are concerned that the project, as proposed, may cause significant degradation within the Grand River by increasing stream velocity, which may alter sediment transport and degrade the stream stability. We are also concerned that the whitewater features may inhibit other public uses of the Grand River and create an unsafe situation where recreational boaters and anglers are unable to move upstream safely. Information on significant degradation through a more detailed analysis of direct, secondary and cumulative impacts of the proposed discharges on the Grand River is necessary for EGLE to consider the significance of these factors as part of its review of the proposed impacts, alternatives analysis, and the State's public-interest review. Again, without this information and analysis, the application is incomplete, making it difficult to determine the extent of environmental impacts of the project as proposed.

Project Purpose

An applicant's stated purpose and need should be an expression of the underlying goals for the proposed project. The project purpose included in the application lists multiple goals including: ". . . to improve the lower reach of the Grand River in Grand Rapids, Michigan through:

- Reducing public safety hazards generated by low-head dams,
- Creating diverse riffles, runs, waves, and pools to restore aquatic riverine habitat and diversity,

[3] 40 CFR Part 230.10(c)

• Improving fish passage,
• Recapturing the sight, sound, and spirit of the historic and iconic rapids, for which the City [of Grand Rapids] is named, and
• Enhancing distinctive recreational opportunities such as wading, angling, and whitewater paddling sports, that are safe, interesting, and substantial enough to engage residents, attract tourists and serve as a catalyst for local, regional, and equitable economic development opportunities." (*TOC No. 06, Revised July 2022*).

This project purpose is overly prescriptive and unduly limits alternatives. In addition, it is not consistent with the purpose included in the draft EA, which does not include the last two bullets included in the EGLE application. In particular, the specific preference for the project to include specific recreational opportunities, i.e., ". . . whitewater paddling sports, that are safe, interesting, and substantial enough to engage residents, attract tourists . . .", is not essential to meet the overall project purpose of improving the condition of the lower reach of the Grand River. Also, the term "substantial enough" does not allow for smaller scale recreational improvements to be considered. Thus, the applicant has not adequately evaluated whether developing the proposed project is the practicable alternative with the fewest adverse effects to the aquatic environment, nor whether an alternative with fewer aquatic resource impacts would meet the overall project purpose.

EPA recommends EGLE consider the overall project purpose to be the improvement of the lower reach of the Grand River, omitting the requirement that the project provide specific recreational opportunities, when evaluating whether the applicant has explored the full range of practicable alternatives. The applicant must include a description and justification of the specific recreational opportunity variables influencing the alternatives that would make the project impracticable without those features, including a discussion of the criteria used to evaluate whether activities were "safe," "interesting," and "substantial enough." This is consistent with EPA's draft EA comments, which recommend additional documentation for the proposed in-river work (specifically, the installation of rapid-like substrate improvements), and an explanation for its inclusion in the purpose and need.

It is EPA's understanding that improvements needed to the lower reach of the Grand River, the project purpose, stems from the degraded condition of the river, safety concern caused by the low-head dams, and the need for better aquatic habitat. While the grouted whitewater features would perform a secondary benefit, they are not aligned with the other goals of the project (e.g., increasing safety and improving aquatic habitat). Therefore, EPA recommends the last bullet (including whitewater recreation) be removed from the project purpose.

Avoidance and Minimization

The Guidelines describe the required steps to select a practicable alternative with the fewest adverse aquatic resource impacts.[4] Similarly, the Guidelines require that all appropriate and practicable steps be taken to minimize adverse impacts to the aquatic environment.[5] Once all aquatic resource impacts, including direct, secondary, and cumulative impacts described above,

[4] 40 CFR § 230.10(a)
[5] 40 CFR § 230.10(d)

are fully assessed and quantified, the agencies can further evaluate whether the proposed alternative is the practicable alternative with the least adverse impacts.

As stated above, the range of alternatives has been unduly limited by the purpose and need to "enhance distinctive recreational opportunities," specifically whitewater paddling sports. EPA recommends the applicant consider alternatives that do not include the grouted whitewater features due to the large footprint and temporary and permanent aquatic resource impacts associated with the grouted structures and high flow velocities proposed.

EPA appreciates the applicant's efforts to explore alternatives that would better imitate a natural river system, but the applicant's conclusion that those alternatives are not feasible is not well supported in the application material. For example, the applicant concluded that the alternatives that would allow more natural movement of substrate (*e.g.*, Alternatives 3a and 3b in *TOC No. 06, Revised July 2022*) would not allow for stable grade control and therefore dismissed those alternatives. EPA recognizes the need for grade control structures to prevent head-cutting upstream of the proposed project. However, many river restoration techniques include grade control that facilitates sediment transport and stable systems using more natural grade control features than what are proposed under the preferred alternative, and EGLE has recently issued permits for similar restoration projects that could be used as a model for the Grand River (*e.g.*, the Boardman River, Flint River, and St. Mary's River restoration projects). To better demonstrate minimization of aquatic resource effects of the proposed grade control structures, EPA recommends EGLE fully evaluate the applicant's modeling and assertion that grouted grade-control is necessary to prevent head-cuts and erosion within the project area. In addition, EPA recommends the applicant further evaluate alternatives that include more natural grade control features and bedform diversity in the restoration design.

More generally, a comprehensive alternatives analysis should consider all impacts associated with the proposed project. The applicant's current alternatives analysis does not clearly consider temporary or cumulative effects as described above under "Impacts Assessment." Without this information and analysis, the application is incomplete, making it difficult to determine the environmental impacts of the projects as proposed.

Summary

Based on our review of the Public Notice, application, and supporting documentation, the applicant has not demonstrated compliance with the Guidelines, and EPA objects to the project as proposed in the Subject Public Notice.

Specific requirements for the applicant to meet the Guidelines requirements include the following, as described in detail above:

- an assessment of direct, secondary, and cumulative impacts, both temporary and permanent, for the agencies to be able to assess the significance of aquatic resource impacts,
- a consistent project purpose that does not unduly limit alternatives to those with whitewater features, and

- an alternatives analysis based on that project purpose that demonstrates that aquatic resource impacts have been avoided and minimized to the extent practicable and describes how the proposed alternative may limit design alternatives for the improvement projects proposed in the upper reach of the Grand River.

Pursuant to CWA section 404(j) and the CWA 404 MOA section 5(d)-(e), EGLE has 90 days from the date of this letter to work with the applicant to resolve the issues raised above or deny the permit. EGLE may request a public hearing on EPA's objection. If the State does not satisfactorily resolve this objection within 90 days after the date of this letter, or within 30 days after the completion of the hearing if one is held, authority to issue the CWA Section 404 permit transfers to the U.S. Army Corps of Engineers.

Thank you for the opportunity to provide comments on this application. We look forward to working with you to resolve the issues discussed in this letter. Thank you for the opportunity to review this Public Notice. Please contact Melanie Burdick at burdick.melanie@epa.gov or 312-886-2255 if you have any questions or concerns.

Sincerely,

Ireland, Scott Digitally signed by Ireland, Scott Date: 2022.12.15 09:44:16 -06'00'

D. Scott Ireland
Acting Director, Water Division

Enclosure